

REMARKS

On page 2 of the Action, claims 8 and 9 were rejected under 35 U.S.C. 112, second paragraph. In this respect, claims 8 and 9 have been cancelled.

On page 2 of the Action, claims 1-9 were rejected under 35 U.S.C. 103(a) as being unpatentable over Reinhall.

The present amendments have been prepared in view of the rejections and GB 737,051 filed as IDS. Namely, claim 3 has been cancelled, and the subject matter of cancelled claim 3 has been incorporated into claim 1 together with other limitations.

As clearly recited in claim 1 now amended, an apparatus for separating and beating a material of the invention comprises a conical stationary shell having a first beating section, a ring-shaped stationary disc provided outside the conical stationary shell and having a second beating section, a conical rotor including a third beating section facing the first beating section to create a gap between the first beating section and the third beating section for the material to pass therethrough, and a ring-shaped rotor disc provided outside the conical rotor and including a fourth beating section facing the second beating section to create a gap between the second beating section and the fourth beating section for the material to pass therethrough. A rotational shaft is attached to the conical rotor for supporting and rotating the same.

The apparatus of the invention further includes means for fixing the stationary disc to the stationary shell and moving the stationary disc independently relative to the stationary shell parallel to a central axis thereof. The fixing means has a body extending from the stationary disc to change a position of the stationary disc relative to the stationary shell. Therefore, the position of the stationary disc can be changed easily relative to the stationary shell.

In the invention, the stationary disc is located outside the conical stationary shell. Also, the distance between the stationary disc and the rotor disc can be made minimum to limit the amount of the material passing therethrough, and the distance between the stationary shell and the conical rotor can be gradually reduced. Namely, the distances between the members can be easily determined and adjusted by the fixing means. Further, it is possible to process the material for a long distance at the conical portions.

If the disc is located inside the conical portion, the material is quickly moved radially outwardly by the centrifugal force of the rotor. Thus, the material can not be held at the disc for a long time for processing or dissociation.

In the invention, since the stationary disc can be adjusted in its position relative to the stationary shell, it is possible to easily change the distance relative to the rotor disc facing the stationary disc without changing the distance between the conical rotor and the stationary shell. The distance between the stationary disc and the rotor disc can be changed easily according to the material to be processed.

In Reinhall, the apparatus includes a radial part, and a conical part outside the radial part. In this case, the material to be processed can be quickly moved to the radial part by the centrifugal force of the rotor. Thus, the material can not be processed for a long time at the radial part. In Reinhall, in order to keep the material for a long time in the radial part, retarding rings 62, 63 are provided at the radial part. In case the radial part is located outside the conical part, as in the invention, the material can be kept in the conical part for a long time, so that the retarding rings are not required.

Especially, in the invention, the radial part is located outside the conical part, and the distance between the stationary disc and the rotor disc is adjusted to the proper position by the adjustment. Therefore, the distance between the stationary disc

and the conical rotor, and the distance between the stationary disc and the rotor disc can be properly set according to the material to be processed.

Reinhall does not disclose the radial port outside the conical part, nor adjustment of the distance of the radial part relative to the conical part independently. The features of the invention are not disclosed or suggested in Reinhall.

In GB '051, a grinding machine includes a housing 10 and a rotatable grinding member 11, wherein conical portions form a pre-grinding zone 33, and disc portions outside the conical portions have grinding members 34, 35. The grinding members 34, 35 are simply fixed to the housing 10 and the grinding member 11.

In the invention, the apparatus includes the means for fixing the stationary disc to the stationary shell and moving the stationary disc independently relative to the stationary shell parallel to a central axis thereof. The fixing means has a body extending from the stationary disc to change a position of the stationary disc relative to the stationary shell. In GB '051, the grinding member 34 is simply fixed to the housing 10, and the adjustment of the grinding member 34 relative to the housing 10 is not disclosed or suggested at all.

In the invention, the position of the stationary disc can be changed easily relative to the stationary shell. Thus, the distance between the stationary disc and the rotor disc can be independently set according to the material to be processed.

The features of the invention are not disclosed or suggested in GB '051.

As explained above, the present invention is not obvious from Reinhall and GB '051.

Reconsideration and allowance are earnestly solicited.

Respectfully Submitted,

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